

# PREFACE

**Identify Characteristics of the M68 CCO**

**Perform PMCS on the M68 CCO**

**Put the M68 CCO into Operation**

**Zero the M68 CCO**

- Bore Sight
- Zeroed Weapon
- Unzeroed Weapon

**Qualify with the M68 CCO**

**Basic Marksmanship**



# **M68 Close Combat Optic**

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# M68 CCO

## Characteristics

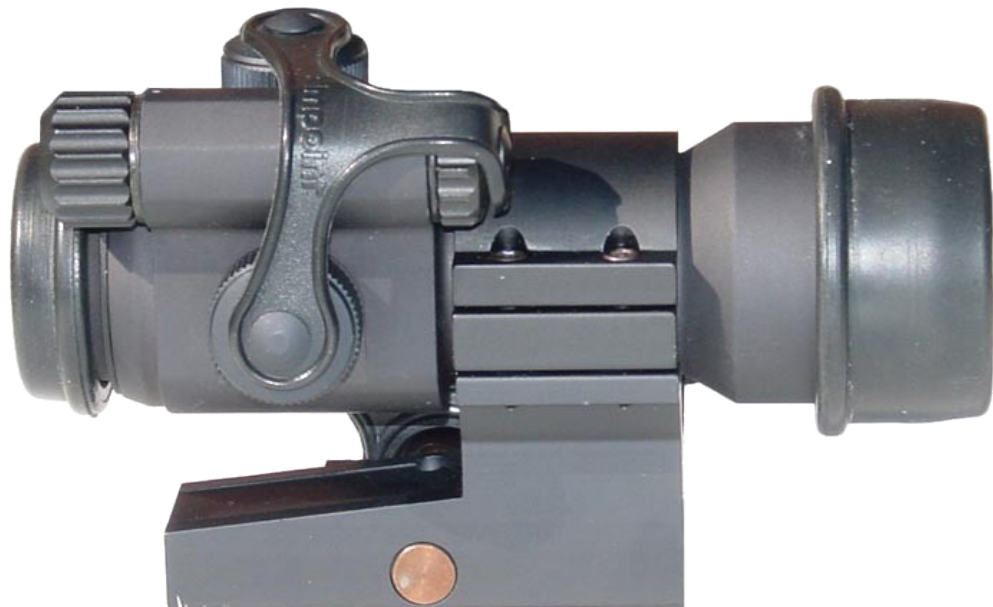
**Description :** Electrical Red Dot sight for the M16/M4 series weapons

**Optic:** 100% Parallax Free, Anti-Reflective Coated Lens System (**BEYOND 50 METERS**)

**Length:** 10.24 inches (260mm) with Mount

**Weight:** 6.2 oz (175g)

**Battery Life:** 3-20 Days



# M68 CCO

## Characteristics

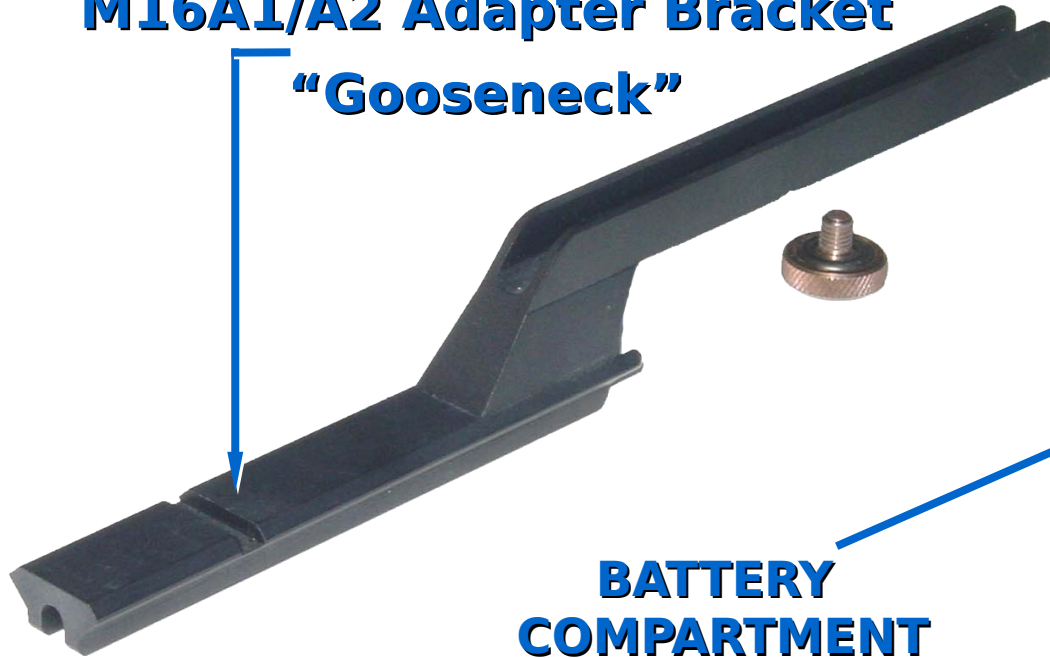


# M68 CCO

## Characteristics

**M16A1/A2 Adapter Bracket**

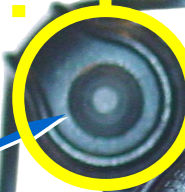
**"Gooseneck"**



**BATTERY ORIENTATION**



**BATTERY COMPARTMENT**



**Anti Reflective Device (ARD)**



# M68 CCO

## Characteristics

The ARD reduces reflection caused by the sun which may be seen by the enemy.

Threads on the ARD and front of M68 allows easy installation of the ARD

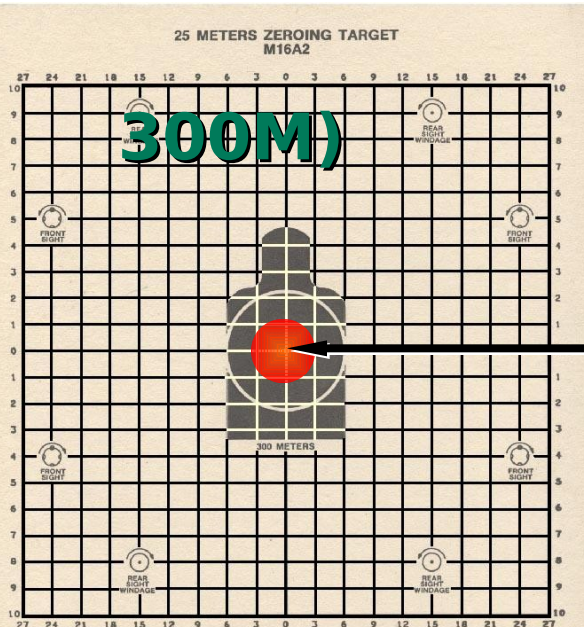


Suggested storage of lens covers while sight is in use

**HAND TIGHTEN THE ARD TO THE M68 ONLY!**

# M68 CCO Characteristics

**RED DOT SIZE: 2.2 cm AT 25M**  
**8.8 cm AT 100M**  
**26.4 cm AT 300M (9.75" AT**



## ZERO TARGET DATA

- 1-ROTATE REAR SIGHT ELEVATION KNOB TO THE 8/3 SETTING, THEN UP (RIGHT) ONE CLICK PAST THE 300 MARK, FOR ZEROING AT 25 METERS.
- 2-AIM AT TARGET CENTER, ADJUST SIGHTS TO MOVE SHOT GROUP CENTER AS CLOSE AS POSSIBLE TO THE WHITE DOT IN CENTER OF THE TARGET.
- 3-AFTER COMPLETION OF THE 25 METER ZERO, ROTATE THE REAR SIGHT ELEVATION KNOB BACK ONE CLICK TO THE 300/800 METER MARK, THE WEAPON WILL BE ZEROED FOR 300 METERS.

**25 Meters**

**NOTE: THE HIGHER THE  
ROTARY SWITCH SETTING  
THE BRIGHTER THE DOT**



**300 Meters**

# M68 CCO Principals of Operation

**Reflex (non-telescopic) sight**

**Place the red dot on the target for a hit on the target.**

**Two eyes open method of sighting**

**centering or focusing required BEYOND 50 METERS**

**If the operator sees the red dot on the target and uses good marksmanship techniques, the bullet will strike the target.**

**WITHIN 50 METERS**



**BEYOND 50 METERS**

# M68 CCO Principals of Operation



**Windage Adjustments**  
**Clockwise one click**  
**Left 4mm at 25 meters**

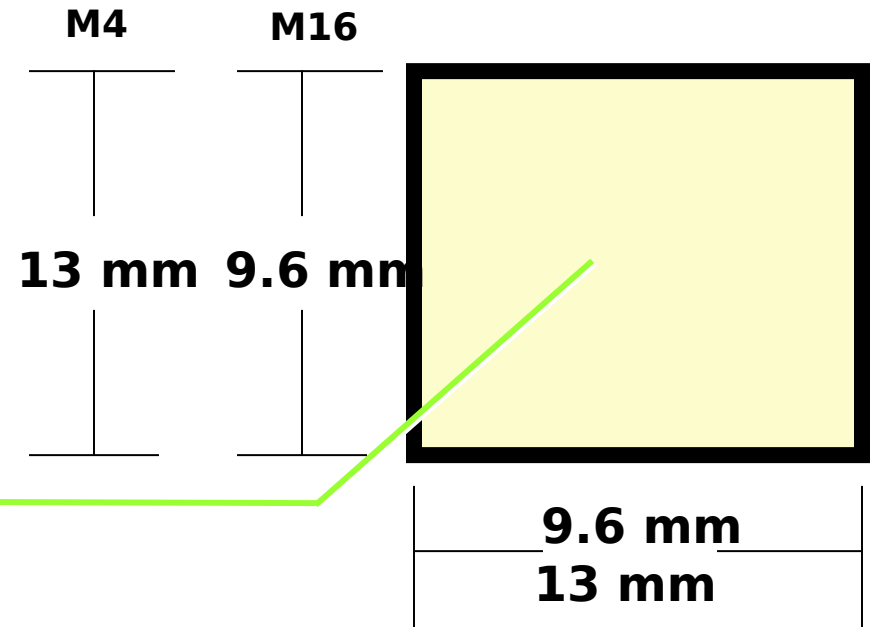
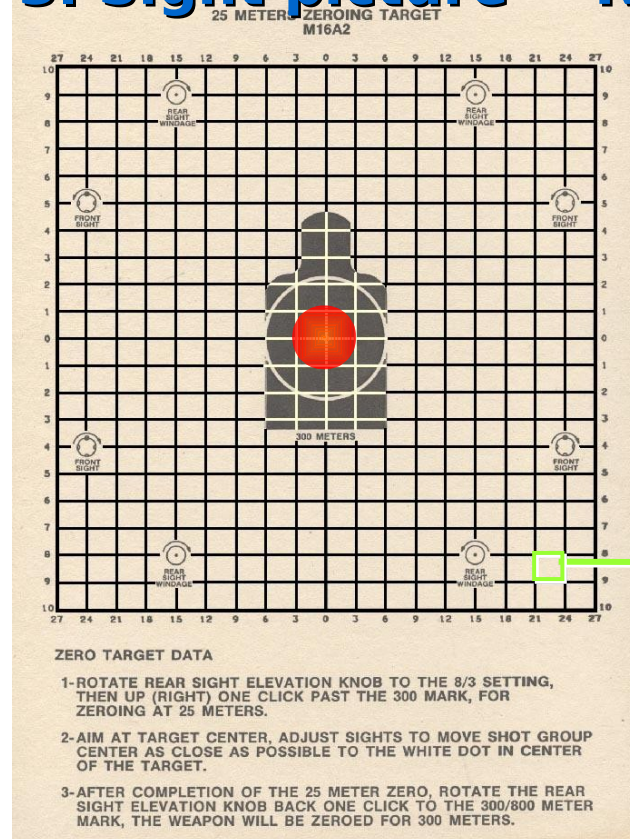


**Elevation Adjustments**  
**Clockwise one click**  
**Down 4mm at 25 meters**

**Windage and Elevation one click = 4mm at 25**

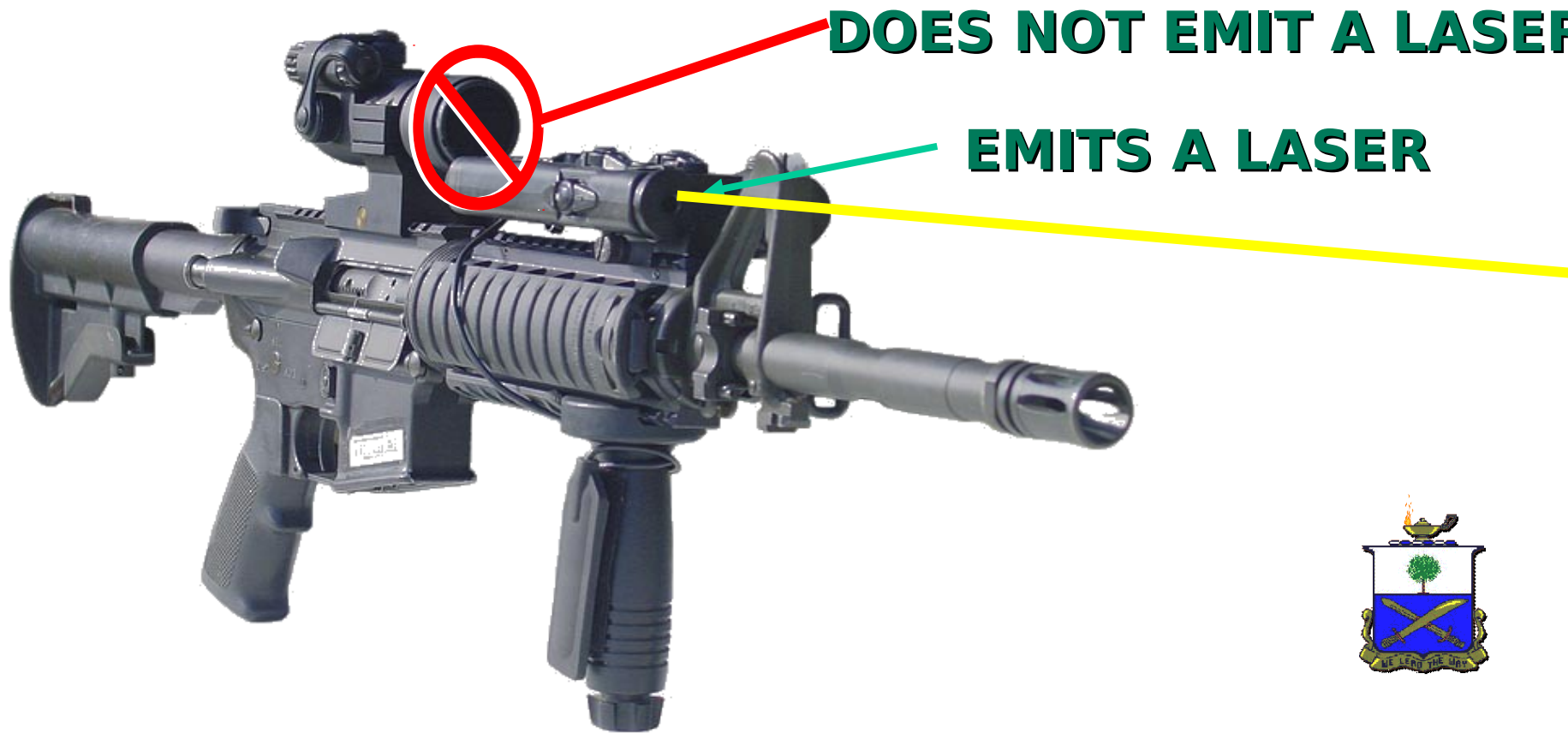
# M16A2 Principals of Operation

1. Elevation (1 click @ 25m = 4mm) (clockwise = down)
  2. Windage (1 click @ 25m = 4mm) (clockwise = left)
  3. Sight picture = Red dot center mass
- NOTE: USE ONLY THE M16A2 ZERO TARGET**



**NOTE: THE HIGHER THE ROTARY SWITCH SETTING THE BRIGHTER THE DOT**

# Mod CCO Principals of Operation



**WARNING**  
**IF ROTARY SWITCH IS SET HIGHER THAN 3 IT CAN BE SEEN AT NIGHT.**

# M68 CCO PMCS



- INSPECT SIGHT:
- INSPECT BATTERY CAP AND ADJUSTMENT CAPS - THREADS, O-RINGS AND BATTERY
- ENSURE RED DOT IS VISIBLE
- MOUNTING BRACKET NOT DAMAGED/MISSING
- LENS COVERS NOT CRACKED/MISSING



# M68 CCO OPERATION

## M16A2 Mounting



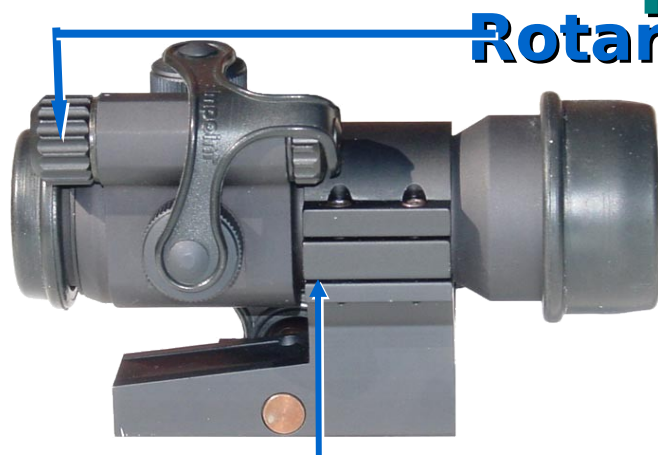
Hand tighten to carrying  
handle only

NO SPACER INSTALLED

# M68 CCO OPERATION



## M4/MWS Mounting



**M4/MWS use  
spacer**



**M16A2 use no spacer**



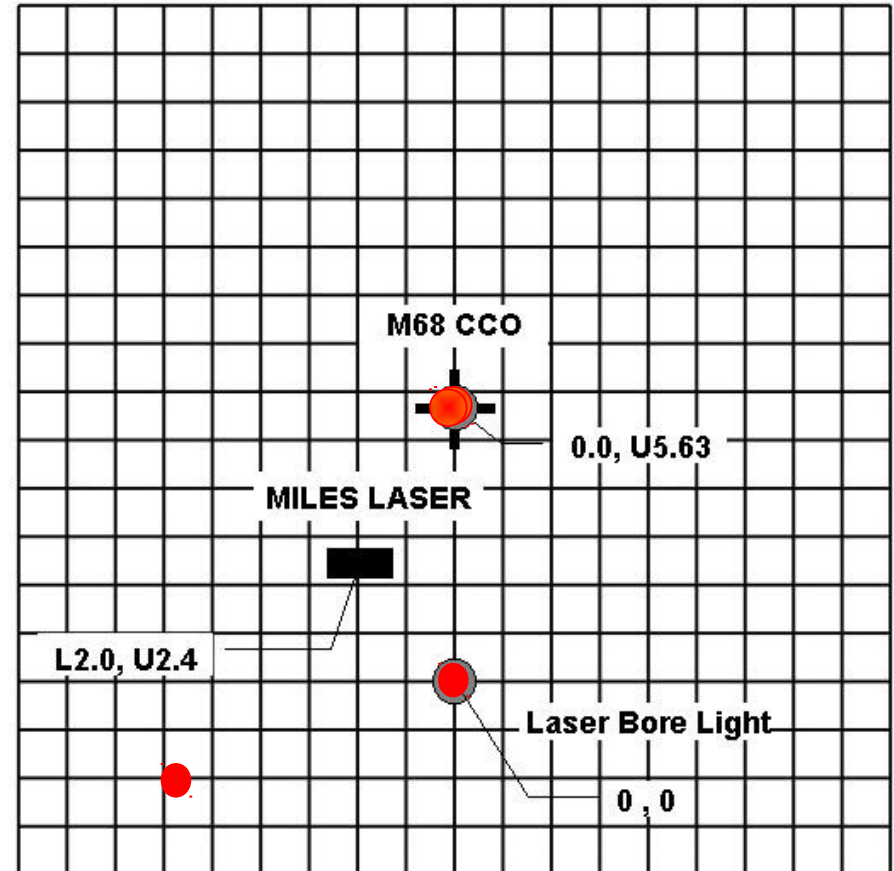
**Mount on same notch  
to maintain zero**

**HAND TIGHTEN TORQUE LIMITING KNOB TWO CL**

# M68 CCO BORE SIGHTING

10 Meter Boresight Tgt-M68 CCO Mtd on M4/M4A1  
Upper Receiver Rail with Half Moon Spacer

1. Zero borelight to the weapon
2. Gunner gets into a stable firing position and, with both eyes open, aims the M68 CCO at the crosshair.
3. Target person will then give the adjustments to be made to the M68 CCO based off the strike of the borelight laser. Borelight laser should fall within the circle provided on offset.
4. M68 CCO adjustment: 1 click = 2mm at 10m (5clicks per square on



Zero Target Data for M16 MWS

1. Stabilize Weapon.
2. Aim CCO at the dot cross hair.
3. Adjust the CCO until the laser borelight is centered on its dot.

10 Meter Bore Sight Target for 300m Zero  
(13 Dec 99)

US Army ARDEC  
AMSTA-AR-CCL-A  
AMSTA-AR-FSF-R  
Picatinny Arsenal, NJ 07806

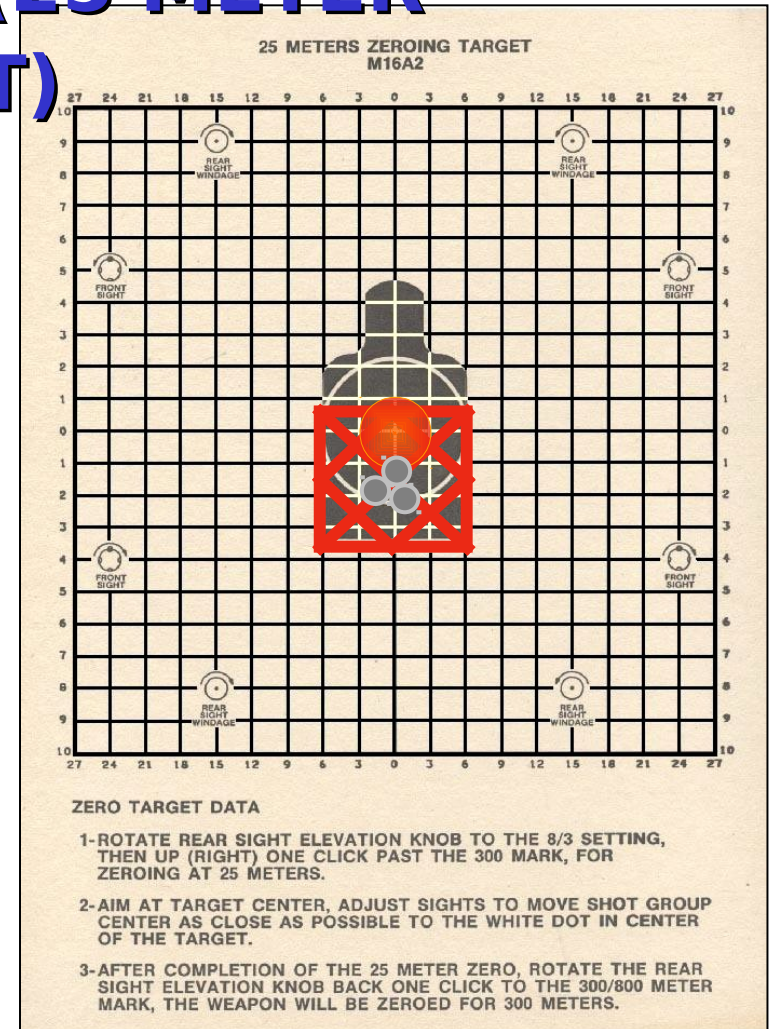
Grids are 1 cm wide by 1 cm high. Units must locally manufacture.

# M68 CCO

## ZEROING (25 METER TARGET)

**DRAW IMPACT ZONE ON THE  
TARGET  
AIM CENTER MASS**

**ROUNDS MUST STRIKE  
1.5 CM BELOW CENTER  
MASS.**



**DOWN 1.5 cm**

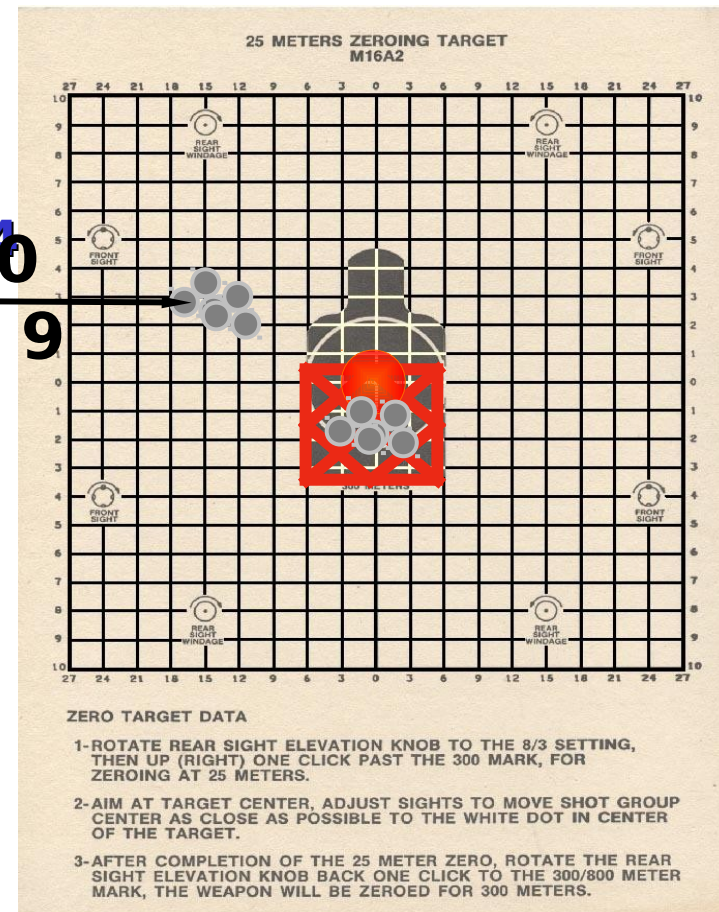
# M68 CCO

## ZEROING (Zeroed

1. Adjust red dot center top of the front sight post
2. Fire three rounds at 25 meters and triangulate
3. Retighten torque knob
4. Shoot another three rounds and triangulate
5. Make adjustments and repeat steps 4 & 5 until zeroed



M16 EXAMPLE = RIGHT 10  
DOWN 9

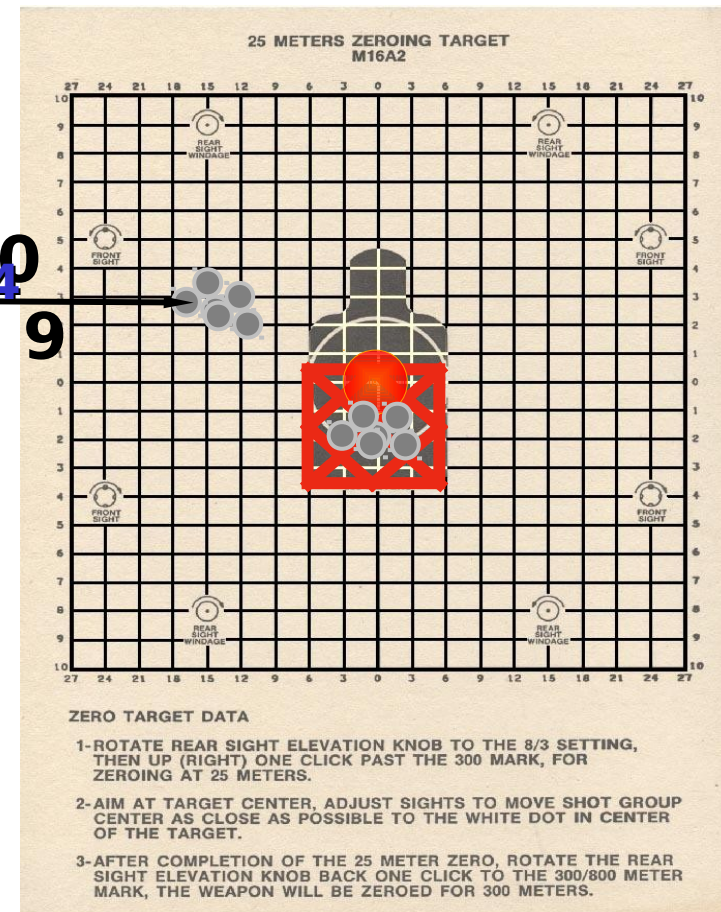


# M68 CCO

## ZEROING (Unzeroed Weapon)

1. Bore sight the weapon with the borelight
2. Fire three rounds at 25 meters and triangulate
3. Retighten torque limiting knob
4. Shoot another three rounds and triangulate
5. Make adjustments and repeat steps 4 & 5 until zeroed

M16 EXAMPLE = RIGHT 10  
DOWN 9



# **M68 CCO ZEROING (Back-up Iron Sight)**

**ADJUST THE M68 CCO UNTIL THE RED DOT IS CENTERED ON THE FRONT SIGHT POST AND CENTERED IN THE REAR SIGHT APERTURE. AFTER RED DOT IS CENTERED FOLD BIS DOWN AND DISREGARD FRONT SIGHT POST WHEN FIRING.**



**NOTE: THE BACK-UP IRON SIGHT SHOULD ALREADY BE ZEROED. IF NOT THE BIS CAN BE BORESIGHTED USING THE BORLIGHT LASER.**

**M68 CCO**  
**QUALIFICATION**  
**QUALIFICATION**  
**23 OUT OF 40**



**WRITTEN**  
**TEST**  
**14 OUT OF 20**

# PRACTICAL EXERCISE

1. WALK THROUGH
2. PMCS
3. MOUNTING PROCEDURES
4. AN/PEQ-2A OPERATIONAL PROCEDURES



# **M68 CCO** **SUMMARY** **SUMMARY**

## **REVIEW TEST**

## **QUESTIONS**

